

AMENDMENTS TO THE CLAIMS

Claims 1-14 (Canceled)

Claim 15 (New): A perpendicular magnetic recording medium comprising:
a substrate;
a nonmagnetic underlayer formed on the substrate, and containing at least one element selected from the group A consisting of Pt, Pd, Rh, Ag, Au and Ir, and at least one element or compound selected from the group B consisting of C, Ta, Mo, W, Nb, Zr, Hf, V, Mg, Al, Zn, Sn, In, Bi, Pb, Cd, SiO₂, MgO, Al₂O₃, TaC, TiC, TaN, TiN, B₂O₃, ZrO₂, In₂O₃ and SnO₂; and

a magnetic layer formed directly on the underlayer, containing at least one element selected from the group consisting of Fe, Co and Ni, and at least one element selected from the group consisting of Pt, Pd, Au and Ir, and containing crystal grains having an L1₀ structure.

Claim 16 (New): The medium according to claim 15, wherein the crystal grains having the L1₀ structure in the magnetic layer are mainly {001}-oriented.

Claim 17 (New): The medium according to claim 15, wherein crystal grains in the underlayer are mainly {100}-oriented.

Claim 18 (New): The medium according to claim 15, wherein the underlayer contains at least one element or compound selected from the group B within a range from 0.1 mol% to 50 mol%.

Claim 19 (New): The medium according to claim 15, wherein the magnetic layer contains at least one element or compound selected from the group B.

Claim 20 (New): The medium according to claim 19, wherein the magnetic layer contains at least one element or compound selected from the group B within a range from 0.1 mol% to 40 mol%.

Claim 21 (New): The medium according to claim 15, further comprising a crystal orientation layer between the substrate and the underlayer.

Claim 22 (New): The medium according to claim 21, wherein the crystal orientation layer contains Cr and at least one element selected from the group C consisting of Ti, Ni, Co, Cu and Zn.

Claim 23 (New): A medium according to claim 22, wherein the crystal orientation layer contains at least one element selected from the group C within a range from 0.1 mol% to 50 mol%.

Claim 24 (New): The medium according to claim 21, further comprising a seed layer between the substrate and the crystal orientation layer.

Claim 25 (New): The medium according to claim 15, wherein the magnetic layer has a thickness of 200 nm or less.

Claim 26 (New): The medium according to claim 25, wherein the magnetic layer has a thickness ranging from 0.5 nm to 50 nm.

Claim 27 (New): The medium according to claim 15, further comprising a protective layer on the magnetic layer.